

What is claimed is:

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comprising:

An ATM cell transmitting device of an ATM switching system

a time slot input unit for switching a plurality of time slots;

a packet processing unit for forming a CPS packet by using the switched time slot data and;

a CAM for receiving header information of the CPS packet and outputting an ATM buffer number;

an ATM cell transmitting unit for storing the CPS packet data outputted from the packet processing unit according to the ATM buffer number outputted from the CAM, to form an ATM cell; and

a controlling unit for performing a general controlling operation.

2. The device according to claim 1, further comprising a timer for setting an ATM cell transmitting time of the ATM cell transmitting unit.

3. The device according to claim 2, wherein the ATM cell transmitting unit receives a CPS packet data and an ATM header for a predetermined time as set in the timer and outputs an ATM cell.

4. The device according to claim 3, wherein the ATM cell transmitting unit sets CPS packet data which is not received yet as '0' and completes an ATM cell, in case that CPS packet data is not wholly received for a predetermined time as set in the timer.

5. The device according to claim 1, wherein the header information of the CPS packet refers to a time slot number and a channel identifier (CID).

6. The device according to claim 1, wherein the time slot input unit comprising:

a time switch for switching a plurality of time slots;

an input buffer unit for storing the plurality of time slot data outputted from the time switch; and

a multiplexer for selectively outputting the time slot data stored in the input buffer unit.

7. The device according to claim 1, wherein the packet processing unit comprising:

a packet header storing unit for receiving a CPS packet header by time slot from the controlling unit and storing the same; and

a CPS packet buffer for storing the CPS packet header outputted from the packet header storing unit and the time slot data outputted from the multiplexer, to form a CPS packet.

8. The device according to claim 1, wherein the CAM allocates the same ATM buffer numbers for the different time slots and CIDs.

9. The device according to claim 1, wherein the ATM cell transmitting unit comprising:

an ATM buffer unit for storing the CPS packet data outputted from the

packet processing unit in a plurality of ATM buffers according to the ATM buffer number of the CAM;

an ATM header generating unit for storing an ATM header; and

a transmitting buffer for combining the outputs of the ATM buffer unit and  
5 of the ATM header generating unit, to form an ATM cell.

10. An ATM cell transmitting device comprising:

a time slot input unit for switching a plurality of time slots;

a packet processing unit for receiving the switched time slot data and  
10 forming a CPS packet;

a CAM for outputting ATM buffer numbers for the time slot and the CID  
inputted from the packet processing unit;

an ATM transmitting unit for storing the data of the CPS packet outputted  
from the packet processing unit according to the ATM buffer number outputted  
15 from the CAM, to form an ATM cell;

a timer for setting an ATM cell transmitting time of the ATM cell  
transmitting unit; and

a controlling unit for performing a general controlling operation.

20 11. The device according to claim 10, wherein the time slot input unit  
comprising:

a time switch for switching a plurality of time slots;

an input buffer unit having a plurality of small capacity of buffers, for  
storing a plurality of time slot data outputted from the time switch; and

25 a multiplexer for selectively outputting a time slot data stored in the input

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a packet header storing unit for storing a CPS packet header provided from the controlling unit; and

13. The device according to claim 10, wherein the CAM stores ATM buffer numbers corresponding to the time slots and the CIDs.

14. The device according to claim 10, wherein the ATM cell transmitting unit sets CPS packet data which is not received yet as '0' and completes an ATM cell, in case that CPS packet data is not wholly received for a predetermined time as set in the timer.

15. The device according to claim 10, wherein the ATM cell transmitting unit comprising:

an ATM buffer unit for storing the CPS packet data outputted from the packet processing unit in a plurality of ATM buffers indicated by the ATN buffer number of the CAM;

an ATM header generating unit for storing the ATM header provided from the controlling unit; and

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